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Analysis of *Jawarish* an important dosage form of Unani medicine in respect of drugs, water, and sugar ratio

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Abstract

Jawarish is an important dosage form used in Unani system of medicine (USM) commonly used for the gastrointestinal ailments and is also used for cardiovascular and neurological ailments. The present study was developed to know many important points pertaining to *Jawarish* a kind of *Majoon* such as difference in the preparation of *Jawarish* in its different kinds. Its preparation is done by making coarse powder of drug ingredients and is mixed with the consistency of sugar or honey. The main aim of keeping coarse powder of *Jawarish* is that the drug could stay for long time in stomach and will help in the digestion and absorption of food stuffs. The main ingredients of *Jawarish* should be volatile, aromatic and sweet. It also aimed to extensively discuss the drug and water ratio; drug and sugar ratio, *Qiwam* and drug ratio for preparing *Jawarish*, which is mentioned with different reference books of USM. In this work *Jawarish* particularly indicated for stomach disorders is being analysed in respect of drug, water, sugar, *Qiwam* and their ratio and data regarding this was set in.

Key Words: *Jawarish*, Unani, medicine, *Majoon*, *Qiwam*

Introduction

The *Jawarish* is a semisolid dosage form that incorporates white sugar, *misri*, honey and drugs dissolved in different solvents particularly water¹. The preparation of *Jawarish* is made by grinding one or more single drugs of plant, animal or mineral origin to coarse powder and mixing it in the base (*Qiwam*) made of purified honey, sugar candy or jaggery. *Jawarish* is also a kind of *Majoon* which is generally prepared for stomach diseases². The founder of *Jawarish* is attributed to Iranian physician³. The reason behind the innovation of *Jawarish* dosage form lies in the fact that most of the herbs, if taken raw, are highly non palatable and action of this

dosage form could be stayed in the stomach for a long time (probably by increasing the particle size of powder incorporated in it in comparison to *Majoon*). So to enhance palatability, prolong the storage period and prolonged the action *Jawarish* dosage form was designed in the Unani system of medicine (USM)¹. The *Jawarish* is used to treat dyspepsia, flatulence, acidity of stomach, nausea, and vomiting etc⁴. As majority of *Jawarish* is indicated in stomach related disorders it was find interesting to access the preparation with concentration of *Qiwam* and drug and similarities or difference in this aspect to understand the pharmaceutical aspects in view of its related pharmacokinetic property. In this work

drug:water, drug:sugar, drug:Qiwam ratio of *Jawarish* with its indication have been analysed and conclusion were drawn.

Methodology

Survey of literature by authentic classical text have been made regarding *Jawarish* and other related matters. The literature included various *Qarabdeens*, formularies and Unani Pharmacopoeas. Water, drug, and sugar content and its ratio and powder particle size (Sieve size) have been tabulated for the assessment.

The word *Jawarish* is derived from a Persian term "*gawarish*" which means tolerable, lovely, digestible and pleasant^{5, 6}. The incorporation of sugar and various ingredients into a *Jawarish* prolongs the shelf life of medicinal ingredients. However, it must be kept in mind that the *Qiwam* of *Jawarish* described here serves as a vehicle for appropriate medicines prescribed for the ailments for which it is recommended. *Jawarish* is one of the important dosage forms of *Majoon* prepared from different type of ingredients / drugs. It is a sweet semi-solid dosage form made by dissolving sugar, misri, honey, or jaggery in water. According to authentic *Qarabadeen* (Pharmacopeia) text *Al-qarabadeen*, *Bayaze-kabeer*, *Qarabadeen-Majeedi*, *Qarabadeen-jadeed*, National Formulary of Unani Medicine (NFUM), *Jawarish* is a sweet thick viscous preparation made by preparing the coarse powder of ingredients / drugs or by taking out the juice of the fruit which is then mixed with sugar and boiled to required consistency (*Qiwam*), that is of two (do) tar⁷. The vessel in which *Jawarish* is prepared is kept on a low fire and boiled till the required consistency is obtained. The *Qiwam* of

Jawarish is mentioned thicker (Viscous) than *Sharbat* but thinner (less viscous) than *Khamira*. When the *Qiwam* is prepared special precaution mentioned is that it should be kept on mild heat otherwise the *Qiwam* will be charred⁷, water and heat regulation is very important aspect in it. In USM various types of *Jawarish* are used. The methodology of the preparation of *Jawarish* is different for different types of drugs and formulations. For example, the methodology is different for juicy fruits, dried sour fruits, dried sweet fruits, dry herbal drugs, mucilaginous drugs, volatile constituents, and so forth. Assessment of ratio of constituent can improve our understanding towards the composition of *Jawarish*. The reference standard for the percentage of *Qiwam* i.e. 75% is taken into consideration while making *Qiwam* of *Jawarish*⁸.

For making *Jawarish* the below mentioned precautions and method of preparation should be adopted: For making the coarse powder of ingredient drugs, the powdered drug should be passed through 40, 50 or 60 # sieve⁹ and in some case 80 # sieve (UPI) to be used in *Jawarish*. Particle size of *Jawarish* powder is to be kept little coarser than *Majoon* but it is not necessary in all cases/ formulations of *Jawarish*⁷. During the preparation of *Jawarish* the ingredient drugs should always be mixed one after the other and stirred continuously to ensure uniform mixing². The costlier drugs like saffron, musk, amber etc. should be triturated with *Arq-e-gulab* before adding to the preparation⁷. The amount of sugar taken should be double than water for making the *Qiwam* (consistency) of *Jawarish*⁸.

The most important care should be taken to avoid

moisture coming in contact with the *Jawarish*^{2, 7}. The *Jawarish* should be made according to the required consistency². The *Mastagi* should be separately ground to powder and addition of this should be done only after the cooling of preparation⁷. If *Arqiyat*, *Aabiyat* and honey are present in the preparation, there is no need of water for making the *Qiwam*⁷. During preservation, if *Jawarish* gets dry it can be brought to normal consistency by adding purified honey or *Qiwam* made of sugar². *Jawarish*

is preserved in clean and dried glass, China clay or tin-coated metallic containers^{2, 7}. The *Jawarish* containing *Triphala* (Three Myrobalan fruits) as main ingredients should not be preserved in metallic containers^{2,7}.

Results

The observations for the Quantity of Drug, Powder size (Sieve size), Water, Sugar, Water: Drug, Sugar: Drug, Sugar: Water and Sugar + Water (*Qiwam* of 75%): Drug is mentioned in Table 1.

Table 1: List of different *Jawarishat* mentioned in different Unani text

S. No.	Name	Drug (g) (Sieve No.) #	Water ml	Sugar g	W: D ratio	S: D ratio	S:W ratio	Qiwam: D ratio / %	Therapeutic uses
1.	<i>Jawarish</i> -e- Amla Ambari	1770 (80 #)	1200	1200	1:1.5	1:1.5	1:1	1:1.2 / 46:54	ZM, Mk (10,11, 12)
2.	<i>Jawarish</i> -e- Amla Luluvi	783 (80 #)	120	600	1:6.5	1:1.3	3:1	1:1.04 / 49:51	FD, NS, ZM, ZD, Miraq, Khafqan, (4,11, 12)
3.	<i>Jawarish</i> -e- Darachini*	640 (80 #)	500	1000	1:1.3	1.5:1	2:1	2:1 / 66:34	Sailan-e-loab-e-dahan, Bakhr-ul-fam (11, 12)
4.	<i>Jawarish</i> -e- Darachini Qawi *	960 (80 #)	250	500	1:4	1:2	2:1	1:1.5 / 39:61 %	MK, ZM, ZK, NS, Kasir-e-riyah, Zofe Kuliya (11, 12)
5.	<i>Jawarish</i> -e- Hazim ^o	40 (80 #)	-	-	-	-	-	-	SH, Sals-ul-baul, (4,11, 12)
6.	<i>Jawarish</i> -e- Hindi*	1020 (80 #)	200	400	1:5	1:2.5	2:1	1:2.3 / 33:64 %	Istirkha-e-lisan, Luknat (11,13,14)
7.	<i>Jawarish</i> -e- Kafoor*	220 (80 #)	325	650	1.5:1	3:1	2:1	3.7:1 / 79:21 %	SH, NS, Tukhma, (4,11,12)
8.	<i>Jawarish</i> -e- Kamooni Kabir *	1425 (80 #)	2250	4500	1:1.5	3:1	2:1	4:1 / 80:20 %	NS, Humuzat-e-meda, Hummiyat, Qeelareehi, Fuwaq, Shahwat-e-kalbi, Qoolanj Reehi, Istisqa tabli (11,12,13)
9.	<i>Jawarish</i> -e- kamooniMushil*	520 (80 #)	750	1500	1.5:1	3:1	2:1	3.6:1 / 78:22 %	Sailan-e-loab-e-dahan, Bakhr-ul-fam (10,11, 12)
10.	<i>Jawarish</i> -e- Muqil ^o	375 (60 #) [^]	-	-	-	-	-	-	Shaqaq-ul-miqad, Bawaseer(4,11)

11.	<i>Jawarish-e-Ood</i> Mulaiyin*	130 (80 #)	200	400	1.5:1	3:1	2:1	3.8:1 / 79:21 %	ZI, Qabz (10,11, 12)
12.	<i>Jawarish-e-Safrajali</i> Mushil	1222 (50 #)	1500	2000	1.2:1	1.5:1	1.3:1	2:1 / 67:33 %	ZI, Qulanj (9, 10,11)
13.	<i>Jawarish-e-Safra</i> Shikan*	7000 (60 #)^	9000	18000	1.3:1	2.5:1	2:1	3.2:1 / 76:24 %	Ghashiyan,Qai, Yarqansuddi (11)
14.	<i>Jawarish-e-Shahanshahi</i> Ambari*	420 (60 #)	750	1500	1.8:1	3.6:1	2:1	4.5:1 / 82:18 %	ZQ, ZD, NS, Khafqan, Waswas, Miraq(9, 10,11)
15.	<i>Jawarish-e-Tabasheer</i> Mushil*	140 (60 #)^	100	200	1:1.4	1.4:1	2:1	1.8:1 / 64:36 %	Ishal-e-safrawi (4,11)
16.	<i>Jawarish-e-Tabasheer</i> Qabiz*	135 (60 #)^	500	1000	4:1	7.5:1	2:1	9.25:1 / 90:10 %	ZM, NS,Ghasiyan dawar, Qai, Ishal(4,11)
17.	<i>Jawarish-e-Zarooni</i> Ambari*	790 (60 #)^	750	1500	1:1.1	2:1	2:1	2.4:1 / 70:30 %	ZK, Salas-ul-baul,Suda, Niqras (10,11)
18.	<i>Jawarish-e-Amla Sada</i> *	85 (80 #)	750	1500	9:1	17.5:1	2:1	22:1 / 96:4 %	ZM, ZK, ZQ, NS,Khafqan, Ishal-e-safrawi (2,10,14)
19.	<i>Jawarish-e-Anarain</i>	120 (80 #)	2300	1000	19:1	8:1	1:2.3	10.4:1 / 91:9 %	ZM, ZK, ZI, Qai, Ghasiyan, Ishal-e- safrawi (2,14)
20.	<i>Jawarish-e-Bisbasa</i> *	265 (80 #)	500	1000	2:1	4:1	2:1	4.7:1 / 83:17 %	ZM, ZH, NS, Bawaseer Ama, Ghasiyan (2,15)
21.	<i>Jawarish-e-Falafili</i> *	650 (50 #)	1000	2000	1.5:1	3:1	2:1	3.8:1 / 79:21 %	SH, waj-ul- meda,Qabz(2,9)
22.	<i>Jawarish-e-Fanjnosh</i> *	790 (60 #)^	1250	2500	1.5:1	3:1	2:1	4:1 / 80:20 %	FD, NS, ZH (2)
23.	<i>Jawarish-e-Jalinoos</i> *	185 (80 #)	300	600	1.5:1	3.25:1	2:1	4:1 / 80:20 %	ZM, ZK, NS, Zof-e-aza- raesa, Khafqan (2,10,15)
24.	<i>Jawarish-e-kamooni</i> *	1500 (80 #)	2500	5000	1.5:1	3.25:1	2:1	4:1 / 81:19 %	NS, Humuzat-e-meda, Fuwaq, Qeela maeeya, Fataq-e-urbi, Qabz (2,13,15)
25.	<i>Jawarish-e-Kundur</i> *	410 (60 #)^	500	1000	1.2:1	2.5:1	2:1	3:1 / 75:25 %	Kasrat-e-Baul(2,13)

26.	<i>Jawarish-e-Mastagi</i>	30 (60 #)^	200	500	6.5:1	16.5:1	2.5:1	20.8:1 / 95:5 %	ZM, NS, Sailan-e-loob-e-Dahan, Ishal (2,13)
27.	<i>Jawarish-e-Narmushk*</i>	730 (60 #)^	750	1500	1.02:1	2:1	2:1	2.5:1 / 72:28 %	ZK, Zof-e-ama, Hummiyat-e-afoni (2,13)
28.	<i>Jawarish-e-Ood Tursh</i>	114 (50 #)	1500	1000	13:1	9:1	1:1.5	11:1 / 92:8 %	ZM, Qai, Ghasiyan(2,9,10)
29.	<i>Jawarish-e-Pudina*</i>	1500 (60 #)^	2500	5000	1.5:1	3:1	2:1	4:1 / 81:19 %	ZH, ZI, Ishal, Ishal-e-safrawi (2)
30.	<i>Jawarish-e-Safrajali Qabiz</i>	570 (50 #)	75	500	1:7.5	1:1.1	6.5:1	1.1:1 / 52:48 %	ZM, Ishal, Qai (2,9,10)
31.	<i>Jawarish-e-Shahi+</i>	225 (60 #)^	135	250	1:1.5	1.1:1	2:1	1.4:1 / 58:42 %	NS, Khafqan, Waswas(2,10)
32.	<i>Jawarish-e-Shahre yaran*</i>	675 (50#)	1125	2250	1.6:1	3.3:1	2:1	4:1 / 81:19 %	ZK, ZM, Qabz, Qulanj, Istisqa (2,9,13)
33.	<i>Jawarish-e-Utraj*</i>	1730 (60 #)^	2500	5000	1.5:1	3:1	2:1	3.6:1 / 78:22 %	ZM, ZK (2)
34.	<i>Jawarish-e-zanjabeel*</i>	485 (80 #)	225	450	1:2	1:1.1	2:1	1.2:1 / 54:46 %	ZI, NS, Ishal(2,13,15)
35.	<i>Jawarish-e-Zarooni Sada*</i>	360 (80 #)	500	1000	1.4:1	2.7:1	2:1	3.5:1 / 78:22 %	Zof-e-kulya, Hasat-e-kulya-wa-masana, waj-ul-kulya, waj-ul-Qutn (2,10,14)
36.	<i>Jawarish-e-Zarshik*</i>	160 (60 #)	250	500	1.5:1	3:1	2:1	4:1 / 80:20 %	ZI, ZH, Qai, Haiza(2,9)
37.	<i>Jawarish-e-Javed*</i>	200 (60 #)^	200	400	1:1	2:1	2:1	2.5:1 / 71:29 %	ZM, ZD(16)
38.	<i>Jawarish-e-Ood Kibreet</i>	44 (60 #)^	500	250	11.3:1	5.7:1	1:2	7:1 / 88:12 %	ZM, ZI (16)
39.	<i>Jawarish-e-Narmushk Mushil*</i>	165 (60 #)^	20	40	1:8.25	1:4	2:1	1:3.3 / 23:77 %	NS, Qulanj (16)
40.	<i>Jawarish-e-Kafoor Qawi*</i>	275 (60 #)^	412	825	1.5:1	3:1	2:1	3.75:1 / 79:21 %	ZM, NS (16)
41.	<i>Jawarish-e-Anjadan*</i>	145 (60 #)^	217	435	1.5:1	3:1	2:1	3.75:1 / 56:44 %	NS, Qulanj, Humuzat-e-meda(16)
42.	<i>Jawarish-e-Usquf*</i>	120 (60 #)^	125	250	1.04:1	2:1	2:1	2.6:1 / 72:28 %	Laqwa, Qulanj(16)
43.	<i>Jawarish-e-Amla Sada*+</i>	668 (40 #)	2500	5000	3.7:1	7.5:1	2:1	9.3:1 / 90:10 %	ZM, ZD, ZQ(9,12,17)

44.	<i>Jawarish-e-Pudina Wilayti</i>	2205 (80 #)	450	7300	1:5	3.3:1	16:1	4:1 / 81:19 %	ZH, Matli, Qai(9,17,15)
45.	<i>Jawarish-e-Safrajali Mushil</i>	2218 (80 #)	300	2700	1:7.4	1.2:1	9:1	1.5:1 / 60:40 %	Qabz, Qulanj(9,17,15)
46.	<i>Jawarish-e-Zarooni Ambari*</i>	776 (50 #)	1200	2400	1.5:1	3:1	2:1	3.8:1 / 79:21 %	ZQ, ZM, ZK, Zof-e-asab, Balghamikhansi, Niqras, Salas-ul-baul (9,17)
47.	<i>Jawarish-e-Anarain+</i>	103 (60 #)	3500	5500	34:1	53.4:1	1.5:1	66.7:1 / 98:2 %	ZM, ZK, ZI, Qai, Matli (9)
48.	<i>Jawarish-e-Shahi*</i>	1924 (50 #)	2000	4000	1:1.03	2:1	2:1	2.5:1 / 72:28 %	ZD, ZQ, Khafqan, Waswas(9)
49.	<i>Jawarish-e-Fawakiya*</i>	1366 (50 #)	500	1000	1:2.7	1:1.3	2:1	1:1.1 / 48:52 %	ZM, ZQ (9)
50.	<i>Jawarish-e-Qurtum*</i>	725 (50 #)	1050	2100	1.5:1	3:1	2:1	3.6:1 / 78:22 %	EB, EH, Khafqan, Qabz, (9)
51.	<i>Jawarish-e-Qurtum*+</i>	180 (60 #)	75	150 [^]	1:2.4	1:1.2	2:1	1.04:1 / 51:49 %	EB, EH (10,11,12)
52.	<i>Jawarish-e-Tabasheer*+</i>	225 (60 #) [^]	225	450	1:1	2:1	2:1	2.5:1 / 71:29 %	ZM, Tabkheer-e- meda, Dawar, Sadar (16)
53.	<i>Jawarish-e-Tabasheer*</i>	2025 (50 #)	600	1200	1:3.3	1:1.7	2:1	1:1.35 / 43:57 %	ZM, Ishal(9)
54.	<i>Jawarish-e-Muqawwi Meda*</i>	145 (60 #)	145	290	1:1	2:1	2:1	2.5:1 / 71:29 %	ZM (16, 9)
55.	<i>Jawarish-e-Muqawwie Meda +</i>	3240 (60 #) [^]	16000	22000	5:1	7:1	1.3:1	8.5:1 / 89:11 %	ZM, ZI, Zof-e-ama (18)
56.	<i>Jawarish-e-Tamar Hindi+</i>	270 (40 #)	250	600	1:1.1	2:1	2.5:1	2.7:1 / 74:26 %	ZM, Qai, Karb, khafqan (2,12,13)
57.	<i>Jawarish-e-Tamar Hindi</i>	645 (60 #)	300	2400	1:2	4:1	8:1	4.6:1 / 82:18 %	Matli, Haiza (9,17)
58.	<i>Jawarish-e-Ood Shireen*+</i>	195 (60 #) [^]	500	1000	2.5:1	5:1	2:1	6.4:1 / 87:13 %	ZH, ZI, Ishal(2,10)
59.	<i>Jawarish-e-Ood Shireen</i>	932 (50 #)	100	3200	1:9.3	3.4:1	32:1	4.3:1 / 81:19 %	ZM(9,17)
60.	<i>Jawarish-e-Ood Muliyan*+</i>	733 (50 #)	1300	2600	1.8:1	3.5:1	2:1	4.4:1 / 82:18 %	ZM, ZI, Qabz (9)

ZM- Zofe Meda, **ZK**- Zofe Kabid, **ZH**- Zofe Hazm, **ZI**- Zofe Ishteha, **ZQ**- Zofe Qalb, **ZD**- Zofe Dimag, **ET**- EhtebasTamas, **EH**- Ehtebas Haiz, **NS**- Nafakhe Shikam, **MK**- Muqawie Kuliya, **BD**-Baul Dam, **MK**-Muqawie Kabid, **SH**-Sue Hazm, (^) indicates average sieve size is considered where sieve size has not been mentioned, i.e. No. 60 # sieve, (*) indicates the formulation in which water content has not been mentioned and it has been considered as per general Reference⁸ in those cases, (+) indicates the different formulation, (°) Quantity of suagr and Qiwaam is not mentioned. The *Qiwam* mentioned in table is as per standard reference i.e 75%.

The *Jawarishat* mentioned in Table 1 having sugar and drug ratio of 3:1 are 19. It is 32% of total *Jawarish* reviewed. The *Jawarishat* mentioned in Table 1 having sugar quantity more than the drug quantity are 48 (80%). The *Jawarishat* mentioned in Table 1, having sugar quantity less than the drug quantity are 10 (16%). The *Jawarishat* mentioned in Table 1 having sugar quantity double than the water quantity is 43 (72%), sugar quantity less than water quantity are 03 (5%) and sugar quantity equal to water quantity is 01 (2%) [Some drugs in these formulations are used in liquid / juice form].

The *Jawarishat* mentioned in the above table having Qiwan and drug ratio of 4:1 are 19 (32%). The

Jawarishat mentioned in the above table having Qiwan quantity / % more than the drug quantities are 51 (85%). The *Jawarishat* mentioned in the above table having Qiwan quantity / % less than the drug quantity are 7 (12%). Qiwan (Sugar and water) ratio is not mentioned in 2 formulations. The *Jawarishat* mentioned in the above table having Qiwan percentage nearly 80% are 21 (35%). Table 1 and Table 2

The *Jawarishat* mentioned in Table 1 in which sieve # no. 60 used is 28 (47%) [Including average 60 # no, where sieve no is not mentioned]. The *Jawarishat* mentioned in Table 1 in which sieve # no. 80 used is 18 (30%), sieve # no. 50 used is 12 (20%) and sieve # no. 40 used is 2 (3%) Table 1 and Table 2.

Table 2: Relative water, *qiwan* and drug characteristics of *Jawarishat*

S No	Parameter Characteristics	Number
1	Sugar: Drug Ratio	
	3: 1	19 (32%)
	Sugar>Drug	48 (80%)
	Sugar < Drug	10 (16%)
2	Sugar : Water	
	2:1	43 (70%)
	1:1	1 (2%)
	Sugar < Water	3 (5%)
3	Qiwan : Drug	
	4 : 1	19 (32%)
	4 : 5	21 (35%)
	Qiwan > Drug	51 (85%)
	Qiwan < Drug	7 (12%)
4	Sieve	
	No 60	28 (47%)
	No 80	18 (30%)
	No 50	12 (20%)
	No 40	2 (3%)

Discussion

Coarse powder of ingredients / drugs are used in making *Jawarish*, the powdered drug should be passed through 50 or 60 sieve to be used in *Jawarish*⁹. Particle size of *Jawarish* powder is to be kept little coarser than *Majoon* but it is not necessary in all cases / formulations of *Jawarish*⁷ and the findings of this work also reveal the same. The powder sieve # size in majority of *Jawarishat* (47%) are made with sieve # no 60 this data also includes the formulation in which powder particle size is not mentioned and average sieve size is considered in those cases. Sieve size 40, 50 and 60 are used in 3, 20 and 47% respectively which acquires 70% of total, in *Jawarish* a larger particle size may be needed to give local action in the lower GI tract as proven by the contemporary literature, increase in surface area in drug with lesser

particle size can also cause rapid degradation by the GI fluids¹⁹. *Jawarishat* in which sugar quantity is equal or less than the water quantity have one similarity that some drug in the formulation are used in liquid / juice form.

Majority (85%) of *Jawarishat* analyzed displayed Qiwan quantity / % more than drug which displays better stability character of *Jawarish*. The *Jawarishat* mentioned in the above table having Qiwan percentage nearly 80% are 21 (35%). This generated data may be helpful for pharmaceutical purposes in assessing drug, water, sugar ratio; drug and Qiwan ratio & percentage. This data can also help for further study on particle size of powder and bioavailability of the drug in *Qiwan* of *Jawarish* particularly indicated in stomach disorders. It not only be helpful in future (R&D) on the formulation *Jawarish* but also can add as a reference for future work. Further sophisticated study on the effect of ratio detected in the finding for the indication of *Jawarish* in stomach diseases and for pharmaceutical purpose is needed. This method is applicable when we are preparing *Qiwan* with sugar. For preparing *Qiwan* with honey, sugar and drug ratio is taken into consideration and sugar quantity will be treated as equal quantity of honey after processing mentioned in Unani texts i.e. *Kafgirifta* / *madabbar*¹⁰. As majority of *Jawarish* is prepared by sugar and water therefore we are taking this *Qiwan* into consideration.

Conclusion

The present study described the preparation of an important dosage form *Jawarish* particularly indicated for stomach disorders is being analysed in respect of drug, water, sugar, Qiwan and their ratio and data regarding this was set in. Data were collected from the

important reference books of USM. Hence this study might serve as a reference for study on different *Jawarishat*.

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References

1. Rafiq-u-Din M. Minhaj-ul-Saidla-wa-Keemiya. New Delhi: SH: Offset Press; 2001; 144,146,150,151,153.
2. Department of AYUSH. National Formulary of Unani Medicine. Part-I. New Delhi: Ministry of Health and Family Welfare, Govt of India; 2006; 85,97-107, 332.
3. Raham ZS. Kitab Al Murakabat. Aligarh: Ibne Sina Academy; 2010; 37.
4. Abdul HH. Qarabadeen Jadeed. New Delhi: CCRUM; 2005; 25-36.
5. Kabeeruddin M. Al qarabadeen. New Delhi: Central Council for Research in Unani Medicine; 2006; 64.
6. Kabeeruddin M. Bayaze Khas. New Delhi: Eijaz Publishing House; 2006; 352.
7. Kabeeruddin M. Bayaz Kabeer Part 3. New Delhi: Idara Kitabul Shifa; 2010; 73,74,79-81.
8. Mastan MA. Ilmul Adviya Unani Dawasazi' Edition Third. Delhi: J.K. Offset printers; 2002; 95 - 97
9. Qarabadeen Majeedi. Delhi: All India Tibbi

- Conference; 1986; 40-63.
10. Kabeeruddin M. Bayaz Kabeer, Part 2. New Delhi: Idara Kitabul Shifa; 2010; 13-23.
 11. Department of AYUSH. National Formulary of Unani Medicine. Part-II. (Vol I) New Delhi: Ministry of Health and Family Welfare, Govt of India; 2006; 66, 84-95.
 12. Department of AYUSH. The Unani Pharmacopoeia of India. Part-II, Vol II. New Delhi: Ministry of Health and Family Welfare, Govt of India; 2010; 57-95.
 13. Qarabadeen-azam-waakmal. New Delhi: CCRUM; 2005; 24-35.
 14. Department of AYUSH. The Unani Pharmacopoeia of India. Part-II Vol I. New Delhi: Ministry of Health and Family Welfare, Govt of India; 2009, 25-33.
 15. Department of AYUSH. The Unani Pharmacopoeia of India. Part-II Vol III. New Delhi: Ministry of Health and Family Welfare, Govt of India; 2016, 57-69.
 16. Department of AYUSH. National Formulary of Unani Medicine. Part-IV. New Delhi: Ministry of Health and Family Welfare, Govt of India; 2006, 50, 54-62.
 17. Department of AYUSH. National Formulary of Unani Medicine. Part-V. New Delhi: Ministry of Health and Family Welfare, Govt of India; 2006, 65, 71-75.
 18. Department of AYUSH. National Formulary of Unani Medicine. Part-VI. New Delhi: Ministry of Health and Family Welfare, Govt of India; 2006, 54, 57.
 19. Fincher JH. Particle size of drugs and its relationship to absorption and activity. Journal of pharmaceutical sciences. 1968; 57(11):1825 - 35.